GYNECOLOGY.

UNDER THE CHARGE OF

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Results of Atmocausis.—FUCHS (*Zentralbl. f. Gyn.*, 1906, Nr. 51, p. 1409) reports 163 cases, in none of which were any ill results noted; 88.2 per cent. of the cases were cured after resisting all other methods of treatment. In 44 in which the desired menopause followed the treatment no atresia occurred. The writer insists upon the importance of careful technique, especially the avoidance of metallic instruments. Curettement and thorough drying of the raw surface should always precede atmocausis. In order to secure obliteration of the uterine cavity exposure for a minute at a temperature of from 115 to 120° C. is necessary, the entire endometrium being subject to the hot steam from the fundus down to a point a quarter of an inch above the level of the os internum. In a few cases the slough may not be cast off for a long time, in which case it is only necessary to tampon the uterine cavity. Fuchs believes that the main indication for vaporization is climacteric hemorrhage.

Relation of Papilloma of the Ovaries to Papillary Cysts.—GOTTSCHALK (*Zeit. f. Geb. u. Gyn.*, Band lviii, Heft 2) dissents from the prevailing view that these neoplasms are entirely different in character. He cites the case of a nullipara, aged thirty-one years, from whom he removed a cystic ovary, the surface of which was covered with papillary bodies, while similar growths were observed on the inner wall of a cyst that had developed from the stroma. Microscopically the superficial papillomas were evidently outgrowths from the surface epithelium of the ovary, and were regarded by Gottschalk as the points of origin of the papillary cyst. All the papillomatous bodies, he thinks, might also have formed cysts were it not for the resistance offered by the thickened cortex.

Associated with the diseased ovary was a gonorrheal pyosalpinx, and it was interesting to note that the superficial papillomas developed at the point where the distal end of the tube was adherent, hence they may have been due to specific infection (?).

Hernia with Torsion of the Pedicle.—DAMIANOS (*Deut. Zeit. f. Chir.*, Band lxxx, Heft 304) reports a case of hernia in a child with symptoms of strangulation. On opening the sac it was found to contain a tube and ovary with twisted pedicle. He believes that the explanation of these cases (twenty of which have been recorded) is as follows:

The ovary in the newborn infant is easily pressed into the adjacent internal ring and is followed by the tube, no symptoms resulting unless a twist of the pedicle takes place, this being due, as Payr has pointed out, to a difference in tension between the relaxed tissues of the pedicle and its thin-walled veins, in consequence of which the latter dilate and wind around the resistant pedicle. The operation consists simply in removal of the adnexa. All the reported cases terminated successfully.

Curability of Uterine Cancer.—TAUFFER (*Gynaekologia; Zentralbl. f. Gyn.*, 1906, Nr. 51, p. 1412) contends that the early recognition of uterine cancer offers the only hope of permanent cure. From a review of 172 radical operations at the Budapest clinic between 1881 and 1904, he states that 44.05 per cent. of the patients kept under observation were free from recurrence at the end of five years. In from 8 to 10 per cent. death occurred in from three to five years after operation.

Malignant Neoplasms of the Tube.—ORTHMANN (*Zeit. f. Geb. u. Gyn.*, Band lviii, Heft 3) has collected reports of 84 cases of primary malignant disease of the tubes occurring in the course of twenty years, cancer being most frequent, next chorioepithelioma, and lastly sarcoma. He reports an interesting complication of primary cancer of the tube with malignant tuboövarian cyst. Of these 85 cases there was accompanying salpingitis in 44, which seems to support Sänger's theory of the inflammatory origin of tubal malignant disease. Secondary involvement of the tube in cancer of the uterus is exceedingly rare, the majority of the cases accompanying primary cancer of the ovary.

Observation of Fibroids by the General Practitioner.—WINTER (*Zentralbl. f. Gyn.*, 1907, Nr. 1, p. 26) calls attention to the fact that the indications for the surgical treatment of fibromyomas are furnished by the symptoms, degenerative processes, and complications. Severe pelvic pain not accompanying menstruation is indicative of some complication—in at least 10 per cent. of the cases of malignant degeneration. Vesical symptoms alone are not an indication for operation until other causes are excluded. It is especially incumbent upon the family physician to study the hearts of his patients with fibroids. Cardiac disease is rather an indication than a contra-indication for operation, though judgment must be exercised as to what risk must be taken. Winter believes that operations are indicated without symptoms in cases of subserous fibromyomas with long, slender pedicles, with rapidly growing tumors, and when they are of large size. The responsibility resting upon the general practitioner who has a case of uterine fibroid under observation is not light.

Re-implantation of the Ovaries.—PANKOW (*Zentralbl. f. Gyn.*, 1906, No. 44, p. 1224) reviews the results of experimental and practical work in this line in America and abroad, referring particularly to Morris' successful case of homoplastic transplantation. His own 7 cases of autoplastic and 2 of homoplastic transplantation lead him to infer that the former procedure is followed by definite results, which support the theory of internal secretion of the ovaries. The two latter experiments (in women who had been castrated two years before) were unsuccessful. Pankow makes the curious suggestion that the ovaries of newborn infants might be utilized in the homoplastic operation (!).

Vaporization of the Uterus.—SCHALLER (*Zentralbl. f. Gyn.*, 1906, Nr. 44, p. 1225) draws the following inferences from observations in a series of 26 cases: (1) Vaporization is a valuable aid to curettement in a certain number of cases. (2) It is impossible to regulate the dosage exactly because of individual peculiarities, so that unfavorable results must occur. (3) Hence vaporization should not be employed in the case of women of childbearing age, because obliteration of the uterine cavity or premature menopause may follow even a short exposure of the endometrium to superheated steam. (4) This method of treatment is absolutely contra-indicated in all cases of fibromyoma, since it is not only useless, but dangerous. (5) Exposure for six minutes to steam, even after thorough drying of the uterine cavity, often fails to produce the artificial menopause or obliteration; hence total extirpation is preferable in cases of intractable hemorrhage. (6) In some instances in which the most careful technique is adopted it is impossible to avoid partial obliteration. the leaving of portions of the mucosa, and the consequent formation of hematometra with resulting bad consequences. (7) Obliteration of the uterine cavity is nevertheless a valuable means of combating obstinate cases of uterine catarrh with accompanying pruritus when all methods of treatment have failed, providing that there is no infection present.

OPHTHALMOLOGY.

UNDER THE CHARGE OF

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The Importance of Bacteriology in Ocular Surgery.—BACH (*Ztschr. f. Augenheilk.*, 1906, vol. x) reviews the different sources of infection in the course of operations upon the eyes, the atmosphere, the hands of the operator, the conjunctival sac and free border of the lids, the instruments, the bandages. He attaches great importance to the conjunctival sac, which can never be sterilized perfectly; the same is true of the free border of the lid. He recommends scrubbing the surrounding skin with soap and mechanical disinfection of the free border of the lids with pledgets of cotton during irrigation with sterilized water. If the patient can be brought to the hospital the day before operation, it is well to apply a bandage, but this should be removed the next morning, but not immediately before the operation. Theoretically no bandage whatever is desirable after operation; but in practice many accessory factors make some sort of bandage necessary. Under the bandage, moreover, the tears continue to circulate within the conjunctival sac, contrary to what seems to be generally believed.

Experimental Researches upon the Visibility of the X-rays.—Bossalino's experiments (*Ann. di Ottal.*, No. 34, 1906) seem to show that the Röntgen rays are visible to the human eye in a condition of adaptation for obscurity; the presence of the crystalline lens is no obstacle to their visibility even when it is cataractous. On the other hand, it is indispensable that there be no pathological alterations of the fundus. The *x*-rays make visible the outlines of metallic objects interposed between the generating tube and the eye, and the visual perception is due to the retina, thanks to the fluorescence of the membrane itself.

School and Myopia.—Schnabel (*Wien. med. Presse*, No. 14, 1906) maintains that high degrees of myopia are neither caused by the school nor do they gradually develop from those cases of myopia which are acquired during school life. Such eyes are affected almost without exception with a grave anomaly of the ocular coat, posterior staphyloma of Scarpa, and this constitutes a fruitful source of danger to the structure and function of the retina. It is not the high myopia which is pernicious but the staphyloma, in which inheres, besides the myopia, the great probability of excessive danger to the function of the retina, and which accomplishes its work of destruction as thoroughly and as frequently in the case of manual laborers as of those who make large demands upon their vision. Moreover, myopias of medium degree (below 10 D. and above 6 D.) are never or but rarely caused by use of the eyes; in these cases also posterior staphyloma, retinal change, and diminished visual acuity are frequently found. Myopias of this degree include the highest degrees of myopia with healthy eyeballs and the lowest degrees of myopia from posterior staphyloma. But even myopia of lower and medium degrees (not above 6 D.) are not rarely found at an age before any demands have been made upon the eye, though in these cases the important influence of visual occupation upon the occurrence of the myopia is plainly evident; these are sound, normally developed eyes. Myopias of the highest grade do not develop from myopias caused by visual occupation; on the other hand, myopias so occasioned do not develop into myopia of the highest degrees. The school is not at all responsible for the misfortune which involves eyes affected with posterior staphyloma. It produces no diseased eyes, though it makes many myopic. It graduates many more myopes than it has received; but only the same number of cases of posterior staphyloma leave as have entered it.

Primary Tuberculosis of the Conjunctiva.—Gourfein (*Archiv. d'Ophtal.*, September, 1906) calls attention to the extreme rarity of tuberculosis of the conjunctiva, either primary or secondary. The statistics given by different authors, although differing greatly, prove it. Thus, Eyre counts one case in 3000 patients affected with ocular disease, Hirschberg one in 6000, Bock one in 10,000, Lagrange two in 15,000, Milligan one in 20,000, Mules one in 33,000. Gourfein himself has observed three cases in 49,000 patients treated at the Rothschild Foundation of Geneva during the past eleven years. The total number of published cases is 140 to 150 as a maximum, of which only eighty or ninety have been proved. As to primary tuberculosis of the conjunctiva only twenty-four cases are known in which the disease was proved experimentally or by the presence of the bacillus, and in which the integrity of the other organs was well established. These statistics are to be accepted with some reserve, as a few reported cases may have been overlooked. Gourfein gives a full report of two cases of the primary form, of which one, aged five years, died from cerebral tuberculosis, while the other, aged twelve years, was cured. His conclusions are (1) that tuberculosis of the conjunctiva can giverise to cerebral tuberculosis; (2) that the prognosis of the ulcerative form is graver than that of the other clinical varieties; (3) that primary tuberculosis of the conjunctiva may show lengthy remissions; (4) that primary tuberculosis of the conjunctiva is curable.

Squint, Its Causes, Results, and Treatment.—SCHOEN (*Centralbl. f. prak. Augenheilk.*, July, 1906) in a monograph of 250 pages considers the doctrine of squint from a standpoint decidedly different from the ordinary, as was to be expected from his former publications. The title "Hypertropia," etc., would characterize its contents still more exactly, the insistence upon the importance of vertical squint, to which the author has paid special attention for the past thirteen years, runs like a guiding line through the entire work. That vertical squint occurs has indeed never been denied in text-books and monographs, but it has been universally treated as a relatively rare occurrence. Increased attention appears to have been bestowed upon this condition recently in America, but no author probably has gone so far as Prof. Schoen, who finds in his private practice a vertical deviation, generally less, it is true, than 1 degree prism in 36.7 per cent. of all his cases. More astonishing even than this percentage is the extraordinary clinical significance attributed to this condition. Vertical deviation when of a degree impossible to be overcome without excessive asthenopia is declared to be the cause of an inexplicable convergent or generally divergent squint, in that the patient, to escape diplopia, prefers to sacrifice entirely binocular vision. In this way those numerous cases of squint for whose explanation all sorts of unproved hypotheses have been set up are to find their ready interpretation.

Vertical squint almost always dates from birth; it is to be ascribed to injuries received during severe and prolonged labor.

The nervous symptoms receive extensive consideration; these result from the excessive innervation required to prevent deviation of the eyes —to render the squint latent. In this connection also the more severe symptoms depend upon the innervation of the elevators and depressors. The accommodation and pupil are involved as well, but the muscular cramp radiates also to non-associated muscles. Vertical squint is declared to be an etiological factor in many cases of vertigo, insomnia, headache, acne rosacea, and chronic alopecia (?). In typical hemicrania Schoen finds ocular defects without exception, among which a vertical squint is very common, and he uniformly succeeds in curing the migraine by correcting the ocular error. The frequent syndrome called cardiac and gastric neurosis uniformly depends upon vertical squint, and the involvement of the vagus thereby occasioned; in fact, the whole conception of neurasthenia is almost to be identified with vertical squint. Finally, even chorea, hysteria, and epilepsy are brought into intimate connection with vertical squint; in diabetes (?) and cyclical albuminuria the connection is also suspected. If Schoen were correct in his conceptions, his researches would have to be looked upon as a scientific triumph of the greatest practical importance; for a large number of disease forms whose etiology is thus far but little understood, would at once receive their explanation and rational treatment. Meanwhile it will be well to preserve a neutral attitude and to notice whether and how far the very optimistic positions of the author will be substantiated by others.

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF

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Typhoid Fever and Shellfish.—An outbreak of typhoid fever due to polluted clams from flats near an outfall sewer is reported by J. F. Beale (*Lancet*, 1907, i, 20): 7 persons ate of clams, which were said to have been thoroughly cleaned and boiled; 4 escaped with diarrhœa and vomiting, but 3 had typical typhoid. Clams obtained from the same source were found to be grossly polluted with sewage bacteria, which could be recovered alive from the tissues of the clams even after fifteen minutes' boiling. This result is in agreement with the findings of H. W. Clark ("Pollution of Shellfish," Thirty-seventh Annual Report of the State Board of Health of Massachusetts, Boston, 1906), whose tests with clams showed that one cannot be sure of sterility in all cases after five minutes' boiling, fifteen minutes' steaming, or by ordinary frying. The same was found to be true also of oysters, which if cooked for more than five minutes are rendered unsuitable for eating, except that, by the method followed in the preparation of "escalloped" oysters, sterility may be secured after fifteen minutes' baking, without serious damage to texture and palatability.

According to a note in *Medical Record* (November 10, 1906), Wesleyan University, Middletown, Conn., has had a second outbreak of typhoid fever, traced to infected oysters consumed at fraternity banquets on October 12, 1906. (It was on October 12, 1894, that similar banquets were held, at which oysters fattened about 300 feet from a sewer outlet were eaten. More than twenty cases of typhoid fever occurred among the participants, but no others among the student body were seized, with one exception—a man who ate oysters from the same lot in the shop of the dealer.—C. H.)

The Paris correspondent of the *Lancet* (1907, i, 551) makes mention of 33 cases of typhoid fever in widely separated places traced to oysters from Cette. The cases were of a grave type and 7 resulted fatally. (Cette oysters are notoriously contaminated and unfit for food. Attention was drawn to their character in 1896 by Chantemesse, in 1900 by Mosny, and at intervals by other French writers.—C. H.)

Action of Boric Acid on the Bacteria of Meat and Sausage Poisoning.—In order to determine what action, if any, is exerted by boric acid on bacteria other than those which bring about putrefaction, which may be present in meat and meat products, R. BASSENGE (*Ztschr. f. exper. Path. und Ther.*, 1907, ii, 113) undertook a series of experiments with Bacillus botulinus and a number of related species, all of which have been isolated from meats which have caused outbreaks of poisoning, and also the colon and typhoid bacilli. The two latter proved to be unable to withstand contact with a 2.5 per cent. solution of the acid. In double this strength it prevented the development of but two of the meat-poisoning species; but even after six days' contact it was unable to destroy any of them. Thus the agent can constitute a real danger to health and life, since it can prevent decomposition by overcoming the slightly resistant bacteria of putrefaction, but cannot affect those which may cause poisoning. The meat products may appear to be of good quality, and at the same time they may be positively dangerous.

Poisoning by Canned Beans.—An unusually extensive outbreak of poisoning due to a most uncommon cause, namely, canned beans, is reported by ROLLY (*Münch. med. Woch.*, 1906, No. 37, 1798). About 250 employes of a single establishment were seized some hours after a free indulgence in canned beans with symptoms of acute and severe enteritis. In some instances the onset occurred about four hours after eating, and in about twenty hours many were brought to hospital for treatment. After from two to four days' disturbance the patients gradually recovered. The beans had been heated for a long time, but not to the boiling point, and most of the bacteria present must have been killed; but colon and paratyphoid bacilli were found. Broth cultures of the latter, type B., were fatal to mice and guinea-pigs after being heated to 100° C. for fifteen minutes. It appears, then, that the trouble was due to the toxins rather than to living bacteria. The paratyphoid organism was not found in the feces. (This is the second recorded outbreak of poisoning due to canned beans; the first occurred in Darmstadt in 1904, and was unusually severe, causing eleven deaths. The beans were not cooked, but were eaten as a salad. The symptoms were not those of enteritis, but of botulism, with the characteristic disturbance of vision and other evidence of involvement of the central nervous system.—C. H)

New Method for Formaldehyde Disinfection.—In place of the Flügge and other methods of formaldehyde disinfection, which are expensive on account of the amount of alcohol required, dangerous on account of the possibility of fire, and slow in disengaging the gas, EICHENGRUEN (*Ztschr. f. angewandte Chemie*, 1906, xix, 1412) advises the use of a compound of paraform and metallic peroxides (barium and strontium), which he calls "Autan."

It comes in the form of powder or in tablets, as desired. On being wet with water, a mixture of paraform and peroxides gives off formaldehyde more or less quickly, according to the proportions in which the ingredients are present. If they are present in equal amounts, the powder on being mixed with twice its weight of water explodes with violence; but as prepared it gives off the gas with comparative slowness, but yet sufficiently rapidly. SELTER (*Münch. med. Woch.*, 1906, liv, 2425) states that the action is so rapid, and the room is filled so quickly, that it is hardly ncessary to do more than close the larger ventilating openings. In his experiments, using as test objects staphylococci, anthrax spores, and fresh tuberculous sputum, the results were good, although a few staphylococci and many anthrax spores survived. WESENBURG (*Hygienische Rundschau*, 1906, xvi, 1241) conducted a series of experiments, in which he used as tests old library books, Staphylococcus aureus, anthrax spores, colon and typhoid bacilli, and pus (Staphylococcus aureus and Bacillus pyocyaneus), with good results. He used an ordinary kettle, in which he placed 1000 grams of autan, upon which he then poured 900 c.c. of water. Not only was the gas given off rapidly, but the air of the room was quickly saturated with aqueous vapor. From his results he concludes that complete disinfection may be expected from the use of 1.4 kilos of autan per 50 cubic meters of air space, with exposure from six to seven hours. He recommends the process as particularly adapted to the disinfection of closets, wardrobes, and other small spaces, with their contents. It is perfectly safe and very simple, there being no danger of fire and no need of any apparatus, beyond a pail or tub and a stick with which to stir the mixture with water. The material is put up in tin cans for rooms of different cubic capacities, and each can is accompanied with an "ammonia generator" containing ammonium chloride. The strongly alkaline residue in the can is treated with water, the ammonium salt is poured into it, and the resulting ammonia neutralizes the formaldehyde gas after the desired period of exposure.

With the suggestion of Eichengrün, Selter, and Wesenberg, that it is unnecessary to make a room as airtight as possible, A. NIETER (*Hygienische Rundschau*, 1907, xvii, 151) does not agree (and how can anybody?). Nieter finds the advantages of the process to be its simplicity, the freedom from danger of fire, and the possibility of a number of disinfections going on simultaneously under control of a single official. On the other hand, a distinct disadvantage is the high price of the material. (From the literature on the subject, it is difficult to learn wherein this process possesses any advantage over the equally simple and safe permanganate and formalin method of the State Board of Health of Maine.—C. H.)

A New Disinfectant: Metakaline.—Metakaline, a compound of hard soap and potassium metacresolate, is found by G. WESENBERG (*Centralbl. f. Bakter.*, 1907, xxxviii, 612) to possess great germicidal power. In 0.5 per cent. solution it is effective against the common pathogenic bacteria within a few minutes, and is absolutely non-irritating.

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